

## **6750, Cloverdale Community Schools**

### **PROJECT ABSTRACT**

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The primary goal of the Cloverdale Community School Corporation (CCSC) is to have teachers design and implement instructional strategies incorporating/integrating technology that would assure that every student is involved and learning in daily lessons and projects. Our secondary goal with this grant opportunity is to assist all students in improving their reading and math/science skills across the curriculum. Both goals are based on CCSC School Improvement Plans. CCSC teachers will also be able to more actively engage students in their individual learning styles by providing access to tools they prefer and at the same time provide supports by utilizing assistive technology applications. We will utilize Response to Intervention teams and data to address Tier II interventions. Additionally, it is crucial that we consider ways to provide more technology for all students to enhance our student performance along with providing a tool for differentiated learning. For Cloverdale and Greencastle classrooms new technology hardware, software and professional development will give both corporations ready access to provide opportunities for online research, online dual enrollment courses and access to technology they currently find lacking. MacBooks will be used as a mobile lab to aid in delivering EduTest, Acuity, remediation and daily coursework as well as criterion referenced assessments and oral presentations, while the addition of DyKnow software and graphic pads will allow both math and science instruction for our middle level students to concentrate on the STEM courses utilizing interactive opportunities.

This grant will provide students and teachers alike a technology rich environment with exciting opportunities for individualized lessons with a greater focus on math and science. Training for staff will be equally valuable as our CCSC and GCSC technology integrators and the tech success teams come together to provide ongoing training for shared faculty and staff. We will look forward to continuing our partnership with Greencastle to provide each child with the opportunity to utilize technology to his/her fullest potential in a manner consistent with technology standards throughout with a focus on the English/Language Arts and STEM classrooms.

### **NEEDS/BASELINE**

This grant will address the needs of students in grades four, five, six, seven and eight in Cloverdale Middle School, Cloverdale Elementary School, Greencastle Middle School and Tzouanakis Intermediate School. As the qualifying corporation, Cloverdale Schools serve 1313 students in grades kindergarten through twelve in a rural setting. Our demographic information continues to address 49.6 SES population as a district in May 2009. Our math and science scores have been below state averages over the last three years while we focused primarily on improving our reading and literacy. We recognize the

need to simultaneously address math and science classroom efforts so the tie into this particular grant is appropriate.

Currently, our math and science departments have access to labs some distance from their own rooms. Scheduling is an ongoing concern. We currently have a technology integrator for the district and have very successfully piloted the InAccess EdTech grant with Greencastle High School. While we intend to continue English technology integration, we also must set about bringing the additional core subjects math and science in line with technology standards.

CCSC ISTEP+ % Passing Math % Passing Language Arts % Passing Science

	7-08	08-09		07-08	08-09		7-08	08-09
Grade 3	76	68		87	72		NA	
Grade 4	75	60				77	71	NA 54
Grade 5	53	66				67	61	56 NA
Grade 6	73	59				73	64	NA 54
Grade 7	60	60				71	71	59 NA
Grade 8	64	67				71	62	NA

GCSC ISTEP+ % Passing Math % Passing Language Arts % Passing Science

	07-08	08-09		07-08	08-09		07-08	08-09
Grade 3	75	72		75	77		NA	
Grade 4	73	78		74	84			82
Grade 5	83	84		83	82		72	NA
Grade 6	83	75		70	72	NA	69	
Grade 7	85	80		73	73		65	NA
Grade 8	79	75	73	73		NA		

Our NCA/PL221 School Improvement Plan recognizes the skill level deficit in our corporation and has identified the areas of math and science as a continuing focus for improved student achievement. We modeled the technology integrator position used initially at Greencastle and have worked together on numerous projects, committees to enhance our programs, and have shared professional development collaborative sessions and summer workshops.

Curriculum alignment based on the Indiana Academic Standards is appropriate in all Cloverdale schools. We will continue to survey teachers regarding the actual use of technology in English/Language Arts classrooms, however, our target group for the next two years will be math and science focused at the middle level. Teachers are required to do a professional growth analysis form at the end of the academic year. End-of-year data is acquired through Collaboration and Creation Time (CCT) subjective reporting. We are actually implementing a variety of technology integration strategies effectively at the current time utilizing one-to-one computing in the classroom. We have been working with the same curriculum consultant for the last two years to coordinate professional development. Our curriculum director will again be assisting our technology coordinator to see that teachers in the math and science departments have an opportunity to review and move forward with appropriate technology in a consistent and creative innovative manner.

### **GOALS/OBJECTIVES**

The CCSC and GCSC District PL221 Plans and district goals align to improving math and science. Our local technology plans have been revised to recognize the positions of technology integrator and the ongoing financial technology concerns. Our district Capital Projects Plans will also address additional plans to coordinate local spending to support classroom technology and maintenance needs. Both districts have focused three-year technology plans approved by the State of Indiana.

Our project objectives and related activities are linked to math and science standards to improve student learning in all major areas. Measurable, attainable educational goals directly support the needs of students. In both districts, educational goals address student achievement needs through local technology plans and our district's PL221 priorities. While we continue to strive to improve our students' critical reading skills and related skills such as writing, oral presentation and test taking, we must address the needs of our students in the areas of math and science at the same time. All of our goals are attainable. Our math and science departments already understand the needs of our students and have aligned lessons in place to address these needs. At the present time, our use of technology is limited because we must share computer labs and presentation rooms with other departments. If each math and science classroom could use technology as needed to implement and enhance lessons, we would be better able to achieve our goals. We have already started to address student needs by utilizing technology in the classroom on a one-to-one basis in our English classrooms at the high school. Our plan includes full coordination and collaboration with the high schools and elementary schools to ensure combined and continued success in the additional areas of math and science.

Measurement of improved student learning in mathematics and science will be accomplished through teachers' formative assessments, locally developed benchmarks and common assessments, and standardized tests such as MAP and EduTest.

Student outcomes to be accomplished through this project include:

- Extension of learning experiences beyond the classroom with authentic data collection experiences
- Opportunities to deepen collaborative learning across grade levels, schools, and communities
- Partnerships with DePauw University for both professional and student learning.
- Scaffolding for targeted students through advanced assistive technology resources
- Deepened intentional mathematics instruction with interactive technology and web-support home accessible classroom instruction
- Collaborative innovative, thematic projects for students and teacher through shared equipment, field experiences and routine videoconferences between schools

CCSC and GCSC currently use student data software to provide parents with electronic access to teachers' homework plans and to their students' grades. Our classrooms have telephones and the school's web page supplies a directory of phone extension numbers and email addresses. The school also has established a career resource center in each of our three buildings, which provides students, their families, and other community members with information, assistance, and instruction during the school day, in the evenings, and on weekends. Programs include SAT preparation, Spanish, GED classes, and various computer applications classes.

Traditionally, parents are more involved in school activities if their children are part of the program. We will include students in parent conferences utilizing a variety of technology related student lead discussions. All goals are attainable within the framework of this project based on our collaborative plans.

## **METHODS/ACTIVITIES**

Our activities are clearly defined. See complete descriptions of how the activities tie into the project's educational goals below:

- o Increase parental/community involvement by providing technology classes and training to assist students. Parents may also attend Parent Resource Nights and Technology Fairs.
- o Ensure that all students and teachers are served by providing assistance with technology instruction, support, and collaboration time with teachers within and between districts.
- o Implement innovative strategies including but not limited to, WebQuest, Video Conferencing, Skype, and Virtual Field Trips. In addition to, presentations between science and math classes from both districts.
- o Alignment if IN standards for math & science to technology standards.

This project will integrate technology by providing technological literacy training to teachers along with collaboration and a Moodle-based site for sharing information. Both districts focus on the vision, goals, and strategies delineated through the Professional Learning Communities work. Collaboration and Creation Time(CCT) will pair teachers with technology specialists from both districts to enable shared lessons within the areas math and science, as well as work to pull in other cross-curricular areas. Streaming video, GPS monitoring with our DePauw Connection, Gizmo Virtual Labs, Moodle and multi-media presentations.

We will integrate technology into classrooms using Effective School Research-Based instructional strategies, affective responsibility, relevant learning, authentic assessment and critical thinking strategies. These various strategies for achieving project goals are supported by Bloom's Taxonomy, and are centered around integrating technology effectively in the classroom.

## **PROFESSIONAL DEVELOPMENT**

We will provide high quality, sustainable professional development for teachers, administrators, and media personnel to ensure effective use of technology in increasing student achievement. Our professional development will be collaborative among individual districts as well as between our partnering district. The plan will include sharing and pairing teachers between CCSC and GCSC to plan interdisciplinary lessons that integrate technology. Furthermore, these lessons can be taught in individual classrooms and/or co-taught between districts with various forms of technology presentation methods.

In addition to our district partnership, we will also utilize the local university for professional development opportunities. DePauw professors will train and assist in developing various lesson plans

with both CCSC and GCSC. This will not only enhance our outdoor labs, but also increase our capabilities within the DyKnow labs we will be adding to both middle school sites.

#### Target Audience

Math Teachers: 1. Susan Smith 2. Cathy Ames 3. Megan Schroeder 4. Heather Nees 5. Don Brattain 6. Shelly Minor 7. Mike VanRensselaer 8. Jeff Miller 9. Jane Roberson

Science Teachers: 1. Greg Crum 2. Paula Thompson 3. Terri Morin 4. Courtney DeWeese 5. Marcia Gould 6. Stacie Stoffregen 7. Amy Matusiak 8. VanMiddlesworth

School Media Personnel: 1. Steve Livingston 2. Kyle Winkler 3. Amy Weliever

Principals: 1. Shawn Gobert 2. Sheila Anderson 3. Stacey Baugh

#### Facilitators

Technology Integrators: 1. Steve Livingston 2. Dawn Puckett

Curriculum Consultant 1. Dr. Kirk Freeman

Technology Team: 1. John Davis 2. Dianna Whitlock 3. Stacey Baugh 4. Steve Livingston 5. Carrie Milner

Building Tech Teams Chs: 1. Angie Ranard 2. Kyle Winkler 3. David Petty

GHS Tech Asst. Stacey Roberson

#### Activities

1. Site visits with previous neighboring schools
2. Technology Literacy Training sessions at the local and state levels
3. Collaboration Time for development of Prof. Learning Communities
4. Conference/Workshop participation
5. Collaboration and Creation Time with individual teachers and technology integrator to develop lessons utilizing strategies selected
6. Collaboration with partner schools

7. Family Math/Science Night
8. Community Technology Fair
9. Prof. Dev. Activities to include: DyKnow Training, Differentiated Learning Styles, Technology Assistance for Science Programs: Lab Quest, Gizmo, Multiple Intelligence Learning Styles, Positive Behavior Assessment Aligned to Response to Intervention Programs, Professional Learning Community Assessment Literacy & Alignment

## **FORMATIVE/SUMMATIVE EVALUATION**

Evaluation will be a clear plan that is presented to assess the impact of the project on students, faculty, and administrators using ISTEP+, EduTest, and NWEA. We will utilize quarterly common authentic and appropriate assessments that are put in place by the staff with a curriculum consultant facilitating and providing support for all of the schools. The Cloverdale School District will use EduTest three times during the academic year, while the Greencastle School District will use NWEA to monitor student progress. Benchmarks and common assessments will provide specific and detailed reporting to allow evaluation of success both individually and collectively.

- ISTEP scores will improve at Cloverdale Elementary School by 2%.  
ISTEP scores will improve at Cloverdale Middle School by 2%.
- ISTEP scores will improve at Greencastle Middle School by 2%.
- EduTest or NWEA will be administered 3 times yearly to track student progress.
- Instructors will develop common assessments based on curriculum that will be administered annually to check for consistent effectiveness.
- Pre and post surveys will be given, and will show at least a 25% increase.
- Teachers will use Summative and Formative test data to provide student achievement indicators.
- Year-end review will allow opportunity for adjustments to program implementation and timelines in all buildings.

## **LOCAL MATCH**

\$25,000

Utilizing our Capital Projects Plan for 2010 we have budgeted Instruction Related Technology - Function 22370 (software and computer support and software licensing (corporation) totaling \$33,100. Additional time and salary issues necessary to implement this new project will be part of our in-kind support. Usual and customary maintenance and setup costs will also be addressed through in-kind contributions. Tables, chairs and room setups will be addressed through Building Acquisition, Construction, & Improvement (includes 45200 and 45300).

Advanced Placement biology classes at the high school will contribute by working with middle school students to encourage younger students to seriously consider career opportunities in the sciences.

Costs for substitute teachers will be paid by local dollars. Professional learning opportunities available through this grant will be encourage to teachers at all levels and strengthen instructional alignment with technology standards. Focus will be on math and science at the middle level, however teachers and students in grades K-8 will benefit from technology integration utilizing additional computer labs and enhanced professional collaboration and professional expertise. Local dollars will be committed to any stipends needed for this expansion to additional departments and grade levels.

## **PARTNERSHIPS**

Greencastle Schools will continue to work with Cloverdale as the partner high school through our English Department InAccess Grant and if approved, the Cadre #3 grant will focus on the needs of math and science teachers and students at the middle school level. Teams from each district have met on many occasions and the technology partnership between their technology staff and ours continues to support our efforts in both districts in a variety of ways allowing us both to collaboratively benefit. DePauw University is an additional partnership that enables K-12 teachers in our schools to participate in the Bridge Technology Integration Workshop held each summer. We recognize and appreciate the challenges and the opportunities and welcome the valuable benefit for students and staff in each district as we continue to share ideas, support, and problem solve. Superintendents are involved and willing to work together to provide the best possible solutions as we move forward with technology integration in the math and sciences.

Cloverdale Superintendent, Dr. Carrie Milner

District Coordinator Stacey Baugh CES

Technology Integrator Steve Livingston CCSC



Principals Sheila Anderson CMS, Stacey Baugh CES

Math Teachers: S. Smith, C. Ames, D.Brattain, H. Nees, M. Schroeder

Science Teachers: G. Crum, C. DeWeese, P. Thompson, T. Morin, M. Gould

Greencastle Assistant Superintendent, Dawn Puckett

Principal: Shawn Gobert

Technology Assistant: S. Robinson

Technology Coordinator: Jeff Sigworth

Math Teachers: J. Roberson, J. Miller, S. Minor, M. VanRensselaer, A. Standers

Science Teachers: Stacie Stoffregen, Amy Matusiak, G.VanMiddlesworth

This EETT 2009 Cadre 3 EdTech Grant will allow us to move forward aggressively and in a similar manner with two additional departments at the middle school level - math and science.

- Increase parental/community involvement by providing technology classes and training to assist students . They will also be able to participate in our Community Technology Fair.
- Promote high-quality STEM education for the students of our districts by offering advanced technologies to enhance the classroom experience, by providing assistance and support of technology instruction for our teachers, and encouraging collaboration time with fellow teachers of both districts.
- Implement innovative instructional strategies including but not limited to, Moodle-based classroom partnerships across districts, classroom performance systems including DyKnow software suite to gauge student achievement, handheld GPS and probe data collection in our communities, multimedia presentations connecting both districts via video conferencing opportunities, virtual field trips, and unlimited Internet programs such as streaming video, virtual labs, and web quests to support the math and science fields.

We recognized the value of a certified teacher positioned to assist teachers with their instructional and technology needs to provide ongoing professional development during the instructional day as well as before and after school. Summer workshops will be utilized for certified faculty and staff.

The timeliness of this grant with current math textbook adoption, followed by science adoption in 2010 will ensure that both curriculums will be rearticulated and common assessments aligned w/Indiana State Math and Science Standards to the Technology Standards. The technology integrators at both districts will provide workshops in July and early August prior to the beginning of school in an effort to prepare for the August 2010 - 2011 academic year. Building administrators, the technology coordinator, and the technology teams will collaborate and partner for training/integration. Email, peer visits, & professional development opportunities will assure teams develop a camaraderie that challenges both districts to provide high-quality Science, Technology, Engineering, & Math education.